

The Megacity

Operational Challenges for Force 2025 and Beyond



Army Chief of Staff's Future Study Plan

"It is not enough to understand, or to see clearly. The future will be shaped in the arena of human activity, by those willing to commit their minds and their bodies to the task."

- Robert F. Kennedy

The Army Chief of Staff's future study plan, **Unified Quest**, recently examined how military forces might conduct operations in or around a megacity and approaches to achieve military success in urban environments in 2030-2040. The Army Capabilities Integration Center (ARIC) Future Warfare Division, in conjunction with its counterparts from the U.S. Army Special Operations Command, the CSA's Strategic Studies Group, and the United Kingdom's Ministry of Defence, hosted the Focused Environment Seminar (FES) 4-7 February 2014 to explore urban operations in a megacity.

Although 24 megacities exist today, continued rapid urbanization will make them more prevalent in 2035. Megacities offer potential adversaries concealment within congested populations and sanctuary in ungoverned districts.

Despite having similar components of urban terrain, the megacity has unique complexities and characteristics that will complicate understanding the strategic environment and challenge regional access. This requires the Army to develop future concepts, capabilities, capacity, and doctrine to achieve operational success.

Characteristics

A megacity is defined as a metropolis of more than 10 million people. Although megacities have similar overarching characteristics, **each megacity is different** and those that concern U.S. national and

partners' security interests are generally in developing countries. They are described as "ill-structured," featuring a mixture of formal, informal, and illicit structures complicated by rapid growth. Megacities in coastal regions – in proximity to major ports and airfields – are of interest as they influence points of entry.

Operational Access

Operating in densely populated areas has challenged military forces in every era as far back as the Peloponnesian War. Military theorists from Sun Tzu to Clausewitz have warned of the dangers and unique challenges of combat in and around urban environments. A megacity environment exacerbates those challenges exponentially.

They have a high degree of congestion due to overpopulation; by 2030, 60 percent of the world's population is expected to live in urban areas. Many megacities feature slums and endemic homelessness, uncontrolled expansion/urban sprawl, and lack of basic support structures (roads, garbage, sewage, etc.).

A Renewed Study

Although each megacity is unique in culture, size, architecture, transportation networks, trade, demographics, and geographic location, some generalizations can be made at the tactical and operational levels of war.

Military operations in a megacity are complex, dangerous, and intense. Urban terrain is the great equalizer when facing determined combatants. The megacity magnifies the power of the defender and diminishes the attacker's advantages in firepower and mobility. Thus, the United States and partner nations will face the possibility of larger entrapments. Weapons standoff technologies are negated by the megacity multi-level structures. Therefore, the actual city fight remains a close fight – street by street, subsurface to sky scraper level, and often face to face.

Summary Findings

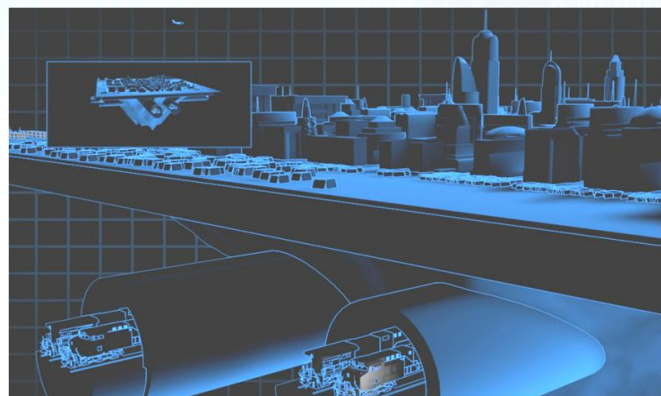
Future land forces require the capability and capacity to gain **situational understanding** of complex megacity environments (physical, human and information).

Access and freedom of movement in and around the megacity will be a primary concern requiring new approaches to sustainment and other enablers.

Strategic Landpower and **Expeditionary Maneuver** may offer solutions for achieving partner interests and strategic objectives.



At the tactical-level, megacities may be thought of as a complex terrain challenge. Within the megacity, however, terrain has multi-level layers: subsurface, surface, elevated (buildings), and airspace. Additional factors within the megacity are cyber, communication, and information realms. The multi-level terrain and additional complexity factors pose unique challenges. Successfully operating in a megacity may require forces to maneuver throughout multiple dimensions simultaneously (surface, subsurface, air, space, cyber, information, etc.) to achieve required effects.



At the operational level, the megacity is an obstacle that hinders access to entire regions and requires new approaches to sustaining operations. Basing in a megacity may be **prohibitive** due to several variables such as population congestion, enemy fires, security, disease outbreaks, or a persistent threat environment. Joint Force vulnerabilities include dependency on improved ports or intermediate staging bases and an inability to secure lines of communication through a megacity.

At the national strategic level, the megacity is inextricably linked to global economic prosperity. The catastrophic implications of future conflict affecting specific megacities warrant significant attention across all tenets of national power. Ideally, the megacity will prove to be a source of continued progress globally and allow nations and people access to the freedoms and benefits currently available to developed states and highly structured population centers. However, the strategic risk associated with emerging megacities resides at the convergence with other well-documented trends, such as resource scarcity, wealth disparity, etc.

Conclusion

The Army has many capabilities suitable for urban operations; however, megacities are fundamentally different due to their size and complexity. In the 2030-2040 operational environment, megacities offer a truly monumental challenge for military operations aimed at securing vital national and partner interests. Due to the complexity and size of the megacity, the Soldier's ability to operate in the megacity will require new capabilities, concepts, and doctrine for future operational success.

Policy makers have few options when considering military responses in megacities. Existing concepts and capabilities, and risk to the force and mission will preclude future forces from achieving military objectives in support of vital national interests. Off-shore balancing and other indirect approaches will be limited by the scope and scale of these environments. Opportunities gained through the application of **Strategic Landpower** enabled by **a modernized force** may offer policy makers options that prevent conflict and, when necessary, rapidly respond to shape and win the Nation's wars.

